

# NASA Begins Observance of Agency's 40th Anniversary

*Editor's Note: Oct. 1, 1998, will mark the 40th anniversary of the National Aeronautics and Space Administration (NASA). This year the Marshall Center will join other NASA centers in marking the anniversary. The article which follows is Part One of a two-part look back at how and why NASA and the Marshall Center came into being.*

**by Mike Wright**  
*Marshall Center Historian*

NASA was created in 1958. Two years later, the space agency established a new field Center in Huntsville, Alabama, known as the George C. Marshall Space Flight Center. But the events that culminated in the establishment of the space agency and the location of one of its key field centers in Huntsville began unfolding long before that.

At its immediate founding in 1958, NASA drew most of its



*The National Advisory Committee for Aeronautics (NACA) was NASA's immediate institutional ancestor when NASA was founded in 1958.*

## Students to be Honored Here For Achievement in 'Olympics'

The NASA awards program for the 1997 Afro-Academic Cultural, Technological and Scientific Olympics will be held today from 1:30 to 3 p.m. in the Morris Auditorium, Building 4200. Employees are welcome to attend.

The annual competition is sponsored by the National Association for the Advancement of Colored People and is designed to recruit, stimulate, improve and encourage high academic cultural achievement among African American high school students. Students compete in 24 categories spanning the humanities, performing arts, science and visual arts.

NASA supports the event by providing judges for the science categories. The students selected have science projects that relate to NASA's mission.

expertise from an institutional ancestor known as the National Advisory Committee for Aeronautics (NACA).

Just a dozen years after the Wright brothers first achieved practical manned flight in 1903 at Kitty Hawk, North Carolina, the U.S. government created NACA to study the problems of flight and to recommend practical solutions to basic aircraft design and construction. NACA's wind tunnel and other research facilities made NACA technical reports the basis for aviation progress for more than 40 years.

Although some of the most visible activities during the early history of aviation in the United States involved stunt flyers and barnstormers, the country still seemed to view the development of the airplane as a worthy aim. But the idea of launching rockets and exploring space often times solicited more laughter than support. Robert Goddard, however, saw things differently. From youth, Goddard dreamed of launching rockets, and in 1926 he launched the world's first liquid-fueled rocket at Auburn, Mass. Some have called the event the "Kitty Hawk" of rocketry. Goddard's rocket traveled 184 feet in 2 1/2 seconds. Goddard made monumental contributions to the science of rocketry but he shunned publicity and in the words of space historian Roger Bilstein, "preferred to work quietly, absorbed in the immediate problems of hardware development and wary of the extreme sensationalism the public seemed to attach to suggestions of rocketry and space travel."

Decades went by during which the areas of rocketry and space exploration received little or no attention in the U.S. But, 31 years after Goddard's first launch, American leadership went into see **Fortieth** on page 4

## Black History Program Set for Tomorrow in Morris Auditorium

The Marshall Center's Black History Month program is scheduled for tomorrow at 9 a.m. in Morris Auditorium. Dr. Delbert Baker, president of Oakwood College, will be the keynote speaker and will focus on the theme, "Education and Entrepreneurship, the Key to African American Success."

A continental breakfast will be served before the Morris Auditorium event at 8:30 a.m.

On Thursday, Lester Jones, regional vice president of Primerica Financial Services, will conduct a Lunch-n-Learn seminar in Morris Auditorium at 11 a.m. Jones will speak on Debt Management and Investments.

# NASA's First On-Line Resource Marks Tenth Anniversary

by Joy Carter

In the mid-1980s, long before the world was barreling down the "Information Superhighway," a group of pioneers at the Marshall Center was mapping a new route for taking NASA resources to the public. This month, Spacelink -- NASA's first public on-line information resource -- will celebrate its 10th anniversary.

The service, which today provides quick and easy access to NASA information on the World Wide Web, is intended primarily for educators and students. But it is also a user-friendly guide for all to use in navigating NASA's many Web sites.

When Spacelink first began, the only way to access NASA information on-line was by using a modem and dialing direct to the Marshall Center. Spacelink first appeared in 1988 as a "dial-up service," a now-antiquated term that referred to on-line sites where information posted by organizations could be accessed by the public.

Computer technology and on-line services have undergone sweeping

changes since the '80s. And so has Spacelink.

Creators have redesigned the service four times to keep pace with technological advances. "As Internet popularity began to grow, we knew teachers would begin using it to gather information, so that was the next step," said Jeff Ehmen, Spacelink manager at the Marshall Center. In 1991, Internet access capability was added, meaning free access for many customers and a big boost in the number of Spacelink users. "There was a dramatic increase in usage," recalled Ehmen. "It really took off."

But there was something even bigger on the horizon -- the World Wide Web. "The World Wide Web was coming, teachers would soon be using it, and we knew it," said Ehmen. "We have always been a little ahead of the curve and have managed to stay there, evolving as technology evolves."

Today, Spacelink -- a nationally recognized Web site -- features links to a library of educational and news services, current events and teaching aids. Its search

engine also serves as a guide to help people locate any publicly accessible NASA information on the Web. "With the volume of information posted by all NASA centers every day, it can be hard to find a specific bit of information," said Ehmen. "With Spacelink, we take an agency-wide look at what NASA does and make it easy for the educator to quickly find NASA-related information. An educator doesn't have to understand NASA's organizational structure to know where to look. We think that's a strong feature."

As the world speeds ahead through the Information Age, Spacelink continues to lead the way in on-line informational resources. "Due to its long history, Spacelink has a very loyal audience of educators, students and the general public," said Ehmen. "We're here because we provide a useful resource for the educational community and because we continue to evolve as technology evolves."

Spacelink can be found on the World Wide Web at: <http://spacelink.nasa.gov>.

## Two Scholarships Offered by MMA

The Marshall Management Association (MMA) Merit Scholarship Program, an award offered by the program to recognize academic achievement and leadership qualities of sons and daughters of Marshall civil service employees and retirees, will award two scholarships worth up to \$1,500 to graduating high school seniors entering an accredited college or university in the fall of 1998.

One scholarship will be awarded to students pursuing a degree in scientific and technical areas and the other will be awarded to students in the areas of business, administration, arts and education. The scholarship recipients will be selected in May. Additional information regarding the scholarships and applications is available in Bldg. 4202, room 108, or by calling 4-9198. The application deadline is April 15.



Members of the Space Station Training Team participate in a Headquarters Project Planning and Scheduling workshop conducted earlier this month at Marshall. The workshop will help the team optimize and manage the Space Station training effort by using work flow analysis. The training team consists of 15 Mission Operations Lab personnel. Other teams interested in this course can check the NASA Headquarters website: <http://www.hq.nasa.gov/office/codeft/codeft/ppmi.html>

Photo by Emmett Given

# Center's Minority Outreach Effort Takes Varied Channels

As part of a continuing effort to partner with minority universities to expand their involvement in the nation's science and technology challenges, NASA is sponsoring the second annual University Research Center Technical Conference this week at the Von Braun Center. The conference is hosted by Alabama A&M University and NASA's Marshall Center.

To achieve its goal to increase research opportunities for both disadvantaged and disabled students, NASA has established University Research Centers at minority institutions—including 11 historically black colleges and three Hispanic-serving institutions. These centers provide students and faculty a NASA focus for research in various branches of aerospace sciences.

One of the players involved in this effort is Dr. Benjamin Penn, a research chemist in the Microgravity Science and Application Division of Marshall's Space Sciences Laboratory. Penn is an active proponent for strong educational outreach to the minority community. As part of the Marshall Star's Black History Month coverage, he shared his views on the subject.

**Marshall Star:** How long have you been involved with educational outreach?

**Penn:** I've been working with educational outreach since the start of my career in 1980. I do most of my outreach efforts through the Equal Opportunity Office here at Marshall and at NASA Headquarters. When Charles Scales was interviewed earlier this month, he explained how the Equal Opportunity Office handles the minority education program and how that program is another of several different aspects of that office. The things that I do with educational outreach complement what the EO office does.



Alabama Sen. Richard Shelby (left) talks with Dr. Tommy Coleman, director of Hydrology, Soil Climatology and Remote Sensing at Alabama A&M, Acting Marshall Director Carolyn Griner and Bettie White, director of Minority University Research and Education Division at NASA Headquarters before the University Research Center Technical Conference opening ceremony.

**Marshall Star:** From your perspective, why do you think such educational outreach efforts are important?

**Penn:** As a minority, I can share the way I view things. I want to get more minorities involved in leading-edge scientific research. I want to guide others in that area so more future scientists may be developed from minority universities, where there is a shortage. Diversification is important for the future, to advance science and technology.

**Marshall Star:** Where do you do your education outreach and how do you make contact with the students that you work with?

**Penn:** I am familiar with many of the students and I try to

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## ISO 9000 Audit Team at Marshall Launching into 'Real Thing'

Beginning today, registrars from National Quality Assurance (NQA) in Stamford, Conn., will be conducting the audit for Marshall Center certification in ISO 9000, the quality management system of the International Organization for Standards. The audit will continue through Friday with five auditors from NQA visiting all organizations considered in-scope.

Bob Schwinghamer, chairman of Marshall's ISO 9000 Working Group, said Center employees have worked diligently for the past two years preparing for this audit. The pre-assessment audit conducted last October provided great insight as to what to expect this week.

Schwinghamer quoted Louis Pasteur in saying, "Chance favors the prepared mind."

He urged that employees — in an effort to be "prepared" — should visit the "Audit Preparation Questions & Answers" within the ISO 9000 Homepage for any last-minute clarifications that may be helpful. That section containing useful hints may be accessed by clicking on the "Countdown to Excellence" animation bar.



Registrars from National Quality Assurance are at Marshall today through Friday for the ISO 9000 audit for certification.



# Four Marshall Employees Selected for 1998 NASA Fellowships

Four Marshall employees are among 30 Agency-wide selections for the 1998 NASA Fellowship Programs.

Marshall employees selected are Sidney P. Saucier, DE01, Harvard University Senior Managers in Government; Dr. Biliyar N. Bhat, EH23, MIT Management of Technology Program; Dr. Paul K. McConnaughey, ED32, Penn State Scientist/Engineer as Manager Program; and Marie Malone, JA12, Simmons College Graduate School of Management for Developing Managers.

Candidates are selected for these highly competitive programs based on work experience, education record, significant recognition, accomplishments



*Sidney Saucier*



*Biliyar Bhat*



*Paul McConnaughey*



*Marie Malone*

and the candidate's objective for participation in the program. The Executive Development Education panel, which consists of representatives from the Centers, makes recommendation for

selections to the Chairman of the Executive Resources Board, General Spence Armstrong. Candidates are selected via a paper review or a paper review and an interview.

## Fortieth Anniversary

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shock when the Soviet Union launched Sputnik the world's first orbiting satellite. The U.S. was in second place in space, something Americans were loathe to accept. Sputnik's audible "beep, beep, beep" in October 1957 served as a wake up call for America, where interest in rocketry had been primarily confined to building missiles to counterbalance the Soviet threat during the Cold War. From 1957 on, however, the United States and Russia were in a race that went beyond building missiles. It included the race to explore space.

One of those interested in the race to explore space was Wernher von Braun, whose famous German team, along with hundreds of U.S. born scientists and engineers, formed the nucleus of the Marshall Space Flight Center in 1960.

Born in Germany in 1912, von Braun built rockets for military purposes. But his dream since childhood had been to build rockets to explore space. He and the initial members of his team developed the famous V-2 rocket during World War II for their native Germany. But the V-2 was not enough to turn the

tide for Germany and as World War II ended, Von Braun and his colleagues contemplated their personal fate and the possibility that their technical expertise in building rockets might serve either the post-war aims of the Allies or, undesirably, the Soviet Union.

Eventually, Von Braun and his group sought out U.S. forces and surrendered. They signed contracts with the U.S. Army and moved from Germany to work for the U.S. Army. Initially assigned to Fort Bliss, Texas, the Von Braun team was later transferred to Redstone Arsenal in Huntsville. There the team expanded to include hundreds of U.S.-born engineers and scientists as well as those who had worked with Von Braun in Germany. Their first major success was building the Redstone ballistic missile. But Von Braun's real desire was to explore space, not build weapons, and he made a proposal as early as 1954 to use a modified Redstone to launch an American satellite. That proposal was rebuffed at first by President Eisenhower, who wanted the Navy to build America's first satellite launcher. But Sputnik and a failed satellite launch-attempt by the Navy moved Von Braun and his Army team into the spotlight in late 1957. On January 31, 1958, the team used a modified Redstone rocket called Jupiter C- to launch Explorer I, America's first orbiting satellite.

*(continued next week)*

## Gagliano Elected to Council

Larry S. Gagliano, EJ71, was recently elected to a two-year term on the NASA Exchange Council at the Marshall Center. He will join two other elected members, May D. Wales/AA01, and R. Brian Key/EJ44, and four appointed members, Axel Roth, PA01 (Chairman); Nancy Guire, CO01; Janet Waters, BG01; and George Myers, ED12. The Exchange Council officials reported there were 614 ballots received in one of the closest Center-wide elections held in recent years.



*Larry Gagliano*

## Huntress Plans to Leave NASA

Dr. Wesley T. Huntress, Jr., NASA's Associate Administrator for Space Science, has announced his departure from the Agency in the near future.

Huntress is responsible for NASA's programs in astrophysics, planetary exploration and space physics.

Huntress was named to head the Office of Space Science in March 1993.

## Upcoming Events

### Open House '98 Homepage

The official homepage for Marshall's Open House is up and running. Visitors to the site can volunteer for the event, peruse the exhibiting organizations' homepages, or look up Marshall Open House policies and guidelines. The Marshall Center Open House is scheduled for 9 a.m. to 6 p.m. May 16. The web address is: <http://www.msfc.nasa.gov/openhouse/>

### Spot an Environmentalist

Until March 31, Center employees are invited to help the Marshall Recycling Committee to "Spot an Environmentalist." Contact Ted Ellett at 4-4778 or Doug Danley at 4-4770 with the names, mail codes, and telephone numbers along with a brief description of the environmentally safe act. The winners will receive gift certificates to Wild Birds Unlimited.

## Huntsville to Host NCMA Second World Congress

The National Contract Management Association (NCMA) accepted a proposal from the Huntsville Chapter of NCMA and selected Huntsville for its Second World Congress. The selection was made last year and, according to Emil Posey of the Procurement Office, the Huntsville Chapter has been working feverishly since then to ensure success in this, the largest of NCMA's educational endeavors.

NCMA is a professional organization founded in 1959, dedicated to fostering the professional growth and educational advancement of its membership in the field of government procurement, contract administration, and contract management. Huntsville is a very active NCMA chapter. Among the largest of some 150 chapters worldwide, the Huntsville group has over 500 members, including a large contingent from the Marshall Center.

With the theme *Bringing Technology Down to Earth*, the Congress is oriented to both registrants and to the Huntsville technical community in general. New and emerging applications of technology are continually impacting relationships within

and between organizations via electronic solicitations, the Internet, electronic commerce, video conferencing, and the like.

With its headquarters at the Von Braun Center, the Congress will feature over 200 concurrent sessions presented by representatives of dozens of aerospace firms, government agencies, and other organizations.

There will also be several plenary sessions featuring speakers such as U.S. Representative Bud Cramer (D, Fifth Congressional District of Alabama), Kent Kresa, Chairman of the Board, President, and CEO of Northrup Grumman Corp. (Invited), and Dee Lee, NASA's Associate Administrator for Procurement.

Attendance can be for a day(s) or for the full three and one-half days. For detailed information concerning World Congress '98 activities and registration information, visit the World Congress web sites at "<http://www.worldcongress98.org>" and "<http://www.ncmahq.org/congress.html>", or contact Emil Posey at 4-0430. Training nominations (MSFC form 59) will be required.

## Penn



Dr. Benjamin Penn is a noted research scientist who wants to share his knowledge so others may benefit.

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become familiar with the different types of research they're involved in. Through my involvement with educational outreach, I see very talented students who work hard and get very excited. I work with minority institutions throughout the United States and the University of Puerto Rico at Mayaguez. The students are from institutions that include Alabama A&M University, Spelman College, New Mexico Highlands University and minority students at the University of Alabama in Huntsville.

**Marshall Star:** How would you describe what you do here at Marshall in the Space Sciences Laboratory?

**Penn:** I am involved in microgravity materials science research where Marshall is the lead center. I've also been doing a lot of research in non-linear optical

organic and polymer composites.

That is my major research area, and I've been working with it since 1984. I also do other types of research related to microgravity and materials science.

**Marshall Star:** How rewarding has your experience been at Marshall?

**Penn:** I've had the opportunity to get involved in leading-edge research. I have enjoyed it and it has been most rewarding working through the educational outreach program, with the minority universities and the small majority universities that are involved with NASA. When I was in college, I wasn't aware of the many opportunities that were out there. I want to share my perspective with others so they may take advantage of these opportunities.

## Employee Ads

### Miscellaneous

- ★ Thomasville sofa; rust, gold, green pattern; tuxedo style, 84 inches long, \$200. 883-8257
- ★ Sears free standing wood heater, glass doors, blower, includes pipes, wood, \$300. 837-6776
- ★ Shakespeare 8 foot marine radio antenna with mount, \$40. 837-5782
- ★ Notebook computer 386 includes internal modem, hard drive, diskette drive, \$500 o.b.o. 837-1275
- ★ Longaberger Easter basket. 837-0085
- ★ Tow dolly, extra heavy duty, two wheel, drive on, \$550. 461-8721
- ★ Sofa, cocktail, and end tables, solid maple with burl inlay, walnut finish, \$500. 895-9520
- ★ Panasonic dot matrix color printer, model KX-P2123, \$45. 539-0094
- ★ Maple Hill, double lawn crypt, choice location, flat bronze monument area, pre-installed vaults, \$2,400. 881-0278
- ★ Hard drive, 1.2GB Western Digital EIDE, new, \$95. 883-4309
- ★ AbWorks by Nordic Track, \$75. 464-6423
- ★ Oak kitchen cabinets, 16', base and wall units, Jennair range, KitchenAid dishwasher, \$700. 539-0994
- ★ Two man fiberglass boat 14ft. with built in live-well, \$250. 721-1052
- ★ 1995 Family Traditions Longaberger Basket w/ protector, \$225. 464-6664
- ★ Evenflo innerspring baby mattress, \$20; Nelson adjustable walker, \$20; Cosco combo bungee jumper, \$30. 721-0764
- ★ Citizen GSX-140+ dot matrix color printer with stand, \$100. 883-9361
- ★ Entertainment center, custom made solid oak for 27 inch TV, \$400 o.b.o. 837-1275
- ★ Western boots by Stewart, size 13B, black, worn three times. 837-5782
- ★ Two piece sectional sofa, \$300; TV/stereo cabinet, holds up to 27" TV, stereo & VCR, \$150. 830-1612
- ★ Freezer, upright, almond color, \$275. 880-9025

### Vehicles

- ★ 1996 Nissan King Cab 4WD pickup, 18K miles, \$15,500. 828-6117
- ★ 1996 Pontiac TransSport van, PW/PD/PL, cruise, tilt steering wheel, 7/8 passenger, \$14,200. 830-8339
- ★ 1987 S-10 Tahoe, V6, automatic, camper, Michelin tires, \$2,500. 837-0085
- ★ 1991 Ranger XLT, five speed, AC/PS/PB/CB, toolbox, new paint, \$2,900. 859-4833
- ★ 1972 Datsun 240Z. 539-9023
- ★ 1988 Plymouth Voyager LE, 6 cyl., 7 passenger, 98K miles, one owner. 882-1382
- ★ 1989 Mazda 323, AC, AM/FM cassette, 4-speed, 83K miles, \$2,500. 880-6794

- ★ 1994 Plymouth Grand Voyager SE, 57K miles, rear A/C, 3.3V6, sunscreen, luggage, PW/PL, remote, new tires, \$22,875. 721-0617
- ★ 1987 Ford Mustang LX, 5-speed, 4-cyl., 95K miles, new tires, \$2,400. 881-5397
- ★ 1992 SAAB 9000, PW, CD, 60K miles, one owner, NADA \$9,500. 539-0994
- ★ 1992 Starcraft Nova pop-up camper, sleeps 7, refrigerator, water heater, furnace, awning, garaged. 233-3368
- ★ 1989 Dodge Grand Caravan LE, one owner, 77K miles, silver, \$4,195. 883-2757
- ★ 1995 Plymouth Grand Voyager mini-van, dual air, 56K miles, \$11,900. 837-0085

### Wanted

- ★ Good used optical telescope. 880-8134
- ★ Custom builder of fiberglass or aluminum to build free-standing enclosed 4 x 8 trailer cargo box. 881-5389

### Free

- ★ Beagle, female, 7 months old, very playful. Needs kids or dogs to play with. 971-1414

### Carpool

- ★ Need ride from Killen, AL to NASA/MSFC, 8 a.m. to 4:30 p.m. 4-8849

## Center Announcements

- ✦ **Barber & Styling Shop** —Effective March 2, the S & H Barber and Styling shop will increase prices on certain services as follows: regular haircuts, \$8; wet layer, \$9; mini style, \$10; long hair, \$9; and style cut, \$15. All other services will remain at the current price. Hours of operation are 8 a.m. to 4:45 p.m., Mon. through Fri. Appointments may be made by stopping by or calling the shop at 881-7932
- ✦ **MSFC Softball Club** —The Softball Club will meet March 12 at 12 noon in building 4752 in the all-purpose room. Players looking for a team need to attend as well as team representatives. For more information contact Rhonda Pepper at 4-5432 or at rhonda.pepper@msfc.nasa.gov.
- ✦ **AFGE** —The AFGE Local 3434 monthly meeting will be held on March 10 at 11:30 a.m. to 12 noon in building 4200, room P-106.
- ✦ **Quality Lab Reunion Luncheon** —This is the 24th anniversary of the 1973 dissolution of the Quality Laboratory. If you were a member of this laboratory please join us for a luncheon at Redstone Officers Club on March 5 at 11:30 a.m.

Come early and visit. For reservation contact Frank Batty at 536-9187; Art Carr at 881-8432; Dick Henritze at 534-8312 or P. M. Hughes at 881-1937.

- ✦ **Blue Cross/Blue Shield** —The Federal representative from Blue Cross/Blue Shield will be at the Center March 3 in building 4200, room 304 from 9 to 11 a.m. to assist employees with claims and questions.
- ✦ **MOO** —The Management Operations Office retirees will meet for breakfast/lunch on Feb. 26 (4th Thursday each month) at the Cracker Barrel in Madison at 10 a.m. Call 539-0042 if there are any questions.
- ✦ **American Express Travel** —American Express Travel located at Bldg. 4203 invites you to join the Marshall Group Cruisetour #5 departing May 28 on the Holland America Line. The cruise is 3 nights northbound on the inside passage from Vancouver to Skagway. Payment can be made with your American Express Card and receive \$300 in Travelers Checks per cabin. Only 3 cabins left! For in depth information call Rosemary at 544-8367 to book.
- ✦ **Engineers Week** —The Annual Engineers Week Awards Banquet will be held on Feb. 26 at the Huntsville Marriott at 6:30 p.m. Tickets cost \$20 per person. For additional information call Herb Shivers at 534-8483 or Robert Van Peursem at 533-6617.
- ✦ **Toastmasters International** —The NASA Lunar Nooners Toastmasters Club will meet March 3 at 11:30 a.m. in the 4610 cafeteria conference room. For more information, call Debbie Hagar at 461-4992, or Lee Johns at 544-5142.

## Job Opportunities

**Reassignment Bulletin: 98-7-CP, Budget Analyst, GS-560-11/12**, Office of Chief Financial Officer, Resources Management Office (4 vacancies). Closes Feb. 23.

**CPP 98-29-MB, Technical Requirements Support Assistant, GS-301-5**, S&E, Mission Operations Lab., Operations Engineering Division, Data Systems Branch. Closes Feb. 24.

**CPP 98-28-DC, Supv. AST, Aerospace Flight Systems, GS-861-15**, S&E, Space Transportation Systems Chief Engineers, External Tank/Shuttle Systems. Closes March 2.

**CPP 98-30-MB, IFMP Training Program Coordinator, GS-301-12/13**, Customer & Employee Relations Directorate. Closes March 12.

**Reassignment Bulletin 98-6-RE, AST, Navigation, Guidance, and Control Systems, GS-861-11/12/13 (2 vacancies)**, Program Development, Preliminary Design Office, Avionics & Propulsion Systems Division, Navigation & Control Systems Team. Closes March 9

# MARSHALL STAR

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